Extract from "A History of the IAS - 1930-195 by Beatrice M. Stern

It is hard to imagine that a group of sophisticated and cultured scholars would be blind to the amenities due a guest, or so remote from humane values as to make a visitor feel unwelcome; it is even more difficult to believe that they sought to influence the Director by neglecting his appointee, though of course, the professors were free to do as they pleased.

With improving financial prospects, it was natural that the Schools should begin to consider the appointment of younger men to succeed those who were retiring. The School of Mathematics had toward the end of 1948 five active professors; the School of Historical Studies had seven. In the first, two would be gone by July, 1951: Professor Weyl by retirement; Professor Siegel by resignation to Germany. In the second, two were to be gone by July, 1950: Professor Stewart through retirement and Professor Warren by death in March, 1950. At this time the School of Mathematics added another young mathematician, a Norwegian, Atle Selberg, a specialist in number theory, who had been a member (1947-1948) and was now about to take a permanent position elsewhere. The School agreed he would be an admirable addition, but there was a quiet debate as to whether he should be inducted

> as a permanent member with a tax-free stipend of about $9,000 in a status like that of Dr. Montgomery, or as a Faculty member with a taxable salary of $15,000. Professor Veblen tentatively suggested the latter, Dr. Oppenheimer equally tentatively the former.

On the 9th November the School unanimously recommended Selberg's appointment on the same basis as Montgomery's. The Faculty and the Board agreed.[47] It looked more and more as though the flexibility which Dr. Aydelotte had so hoped for was at hand.

The recommendation went to the Board with a vita written by Professor Siegel. After noting three fine discoveries to Selberg's credit, he said:

> Selberg is already thirty-one years old. Perhaps he will never again do mathematical work comparable to his three discoveries, but he has already his place in the history of science in the 20th century.

This observation is bound to provoke thought about the purposes of the Institute. What if Dr. Selberg's fruitful period for discovery in pure mathematics were past? How would he spend the next thirty-four years of his active professorship in pursuits most useful to mathematics, the Institute and himself? When Dean Fine, Professor Eisenhart and Professor Veblen had inducted youngsters into the Department of Mathematics as preceptors because they gave promise of distinguished work, they taught and researched at the University, and their prospects were that they would continue to do so there or elsewhere during their active lives. But at the School of Mathematics as it had developed, not even the obligation to extend a helping hand to the few younger postdoctoral workers was recognized as due from a professor, except, perhaps, by Professor Weyl. What would a young man like Selberg do in such circumstances?

Furthermore, what obligation did the Institute, as a part of the educational system of the country, have toward the oncoming generation of men and women who were planning academic careers? If such a man as Selberg were through with constructive researches, did not his value in future lie in his relationship to students and young scholars, in inspiring them to emulate his earlier performance? Dr. George Birk-

hoff gave an answer when he proudly assayed fifty years of American mathematics in 1938, and spoke with all the fervor of an evangel:

> It is our duty to take an active and thoughtful part in the elementary mathematical instruction of our colleges, universities and technical schools, as well as to participate in the higher phases. To these tasks we must bring a broad mathematical point of view and a fine enthusiasm. Insofar as possible we must actively continue as competent scholars and research workers. Only by so doing can we play our proper part....
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> It is not enough for the exceptional man whose early work has led to professional recognition, to take thenceforth an easy-going attitude; such a man should continue with the devotion of a leader in a great cause. Furthermore, we ought all to provide our share of first-rate elementary teaching, by which we justify our privileged positions in immediate practical terms. If we do these things, mathematics in America will rise to still greater heights and there will appear among us mathematical figures comparable to the greatest in the past.[48]

Dr. Flexner had envisioned a continuing and close scholarly cooperation between the Department of Mathematics and the School, believing that the influence of both faculties would be felt by the University's advanced students as well as the Institute's members, whom he thought of as young Fellows or grantees at the beginning of their academic careers. Now that the School was quite remote from Fine Hall and its faculty, the tendency to regard the younger men and women as important diminished. In the early years of the Institute it was said that Princeton -- the Department and the School -- was the center of American mathematics, and the world center of pure mathematics. Together the two faculties, acting ideally as one, could easily cover all branches of current interest in the complex field, especially with the capacity of both, but particularly the Institute, to call in as visitors specialists in other branches for changing patterns of work and interest. But

soon Professor Veblen's driving ambition became apparent; the Institute must have the most distinguished men as Faculty members and visitors in the Institute. It is interesting that the Department declined to join in inviting to Princeton the three eminent visitors to Harvard's tri-centennial celebration in 1936, when Mr. Hardy taxed the School with wanting a "monopoly."

Professor Veblen had freely admitted that the School placed its emphasis on arrivées in inviting members with the idea of avoiding Nirvana, which he had not envisioned as a threat when he projected his institute for mathematical research in 1924. While this admission was made to re-inforce his demand for many members, it must be said that the visitors got an opportunity to partake of a royal mathematical feast. They emerged refreshed, with their interest and ambition revivified. Not infrequently they returned to better salaries or even to better positions because of the distinction of having spent a year at the Institute. Professors who were not interested in research also benefited in these ways. Those who were working in a specialty which interested a professor of the Institute frequently found the fruits of collaboration quite rewarding. But the contribution to be made by the School to younger postdoctoral members was quite evidently a secondary consideration: witness the lack of National Research Council registrants in 1937 when they were called upon to elect to study with either the Department or the School, and not both.

To return to the way in which the young Professor Selberg might spend those last active thirty-four years if his period of discovery were past in 1948, other mathematicians and theoretical scientists have given

their answers. Usually they found something else to do which interested them, and where they were useful. One counseled a President of the United States in scientific matters, and devoted efforts to collegiate educational reforms. Another became president of a university, and later busied himself working for the reform of secondary education. Dr. Oppenheimer administered the Institute for Advanced Study, and advised and consulted government agencies on scientific problems in his field. Professor Veblen turned his not inconsiderable powers toward directing the affairs of the Institute, having completed his last successful major scholarly contribution to mathematics just as he came to the Institute. His ambition collided with Flexner's necessities, and Flexner retired. He influenced the Institute's policies largely through persuasion in the beginning of Dr. Aydelotte's term, and later, by compulsion. Dr. Weyl presented a different picture; he was interested, and was a power, in mathematics until he died. But his interests were catholic; he was primarily a scholar.

Indeed, a strange and somewhat perilous paradox existed within the Institute as Flexner organized it, and remains. Youthful appointments to the Faculty can not be made in the non-mathematical subjects. There, regardless of the hypercritical attitude of the School of Mathematics toward the other School's nominations to the Faculty, the only possible candidate has behind him years of study; he must be erudite, as only great preparation crowned by talent and high intelligence can make him. His learning must be expressed in books; no teacher, regardless of how superb might be his contribution through training others, could be considered for an Institute appointment in the humanities

unless he had produced writings upon which his capacity might be judged. His mode of life was not, then, so different when he came to the Institute. Of the first group in those schools of which we are speaking, only Professor Panofsky and Professor Riefler had Weyl's interest in training the young scholar of the future, although Professor Meritt occasionally taught a class at the University, from which he had graduated, and also accepted occasional visiting lectureships elsewhere. One must say to be truthful that when a scholarly man is confronted by the opportunity to research, with only an indefinite obligation to guide postdoctoral students, he favors the researches and neglects the training function.

But to return to the paradox: it was simply that the professors in mathematics who became middle-aged and older in the Institute's service tended to devote themselves to administrative affairs; the nominees of the non-mathematical schools were already mature scholars, and so deeply aware of the shortness of time to do what they had planned that they spent little time and thought, beyond taking care of their own immediate needs, on other problems. Nor did they winnow the fields to attract workers to the Institute, unless they were going to be of direct interest to their views.

In the intricate game of academic politics, the difference in ages gives to the mathematical group a superior opportunity to further their own discipline. Moreover, the humanist faces no Nirvana; he is used to working alone, as mathematicians are also reputed to be. Nor does he depend for the prestige attaching to his position upon the mature specialists he may be able to bring in as members, as a general thing.

It might be better if he were not intrinsically such an individualist, but his nature is understandable, since his disciplines are well established, and he is not busy building to a new and indispensable status in the culture.

In the sense that the Institute is part of the educational structure of the country, as Flexner planned it would be, an academic appointment in the School of Mathematics today may diminish the opportunities for training students to a greater extent than a similar one in the humanities, although to the extent that both Schools tend to invite only the more mature members, both do so. In the sense that the School of Mathematics is able to recruit younger men than the School of Humanistic Studies, who in the nature of things have more time and a stronger group interest in promoting the prestige of their calling, the Institute seems to be required in future to continue to spend more of its resources on mathematicians than on any of the theoretical sciences or all the historical studies.

The escalation to the professorship seemsto have been successfully established in the School of Mathematics at long last. But the permanent membership was not necessarily the answer to the Faculty's need for replacements in the policy-making function. For that reason, and the expectation that their non-faculty status was felt to be of short duration, both Pais and Selberg joined Montgomery in attending School of Mathematics meetings on occasion, and after their appointment to the Faculty by the Board on the 21st October, 1950, to be effective the first of the next fiscal year, they attended the meetings of the full Faculty by invitation,